prestolite SERVICE MANUAL

STARTING MOTOR SECTION

(Issued 3-16-78)

ROTATION See Tabulation VOLTS 12 POLES 4 BRUSHES 4

LUBRICATION At overhaul, all bronze bearings should be well lubricated with medium engine oil.

Cover armature shaft at Drive End with a film of lubricant before assembling drive.

STARTING SWITCH See Tabulation.

BRUSH SPRING TENSION 42 to 53 ounces with new brushes. Measure with scale hooked under the brush spring near the brush. Pull on a line parallel to the face of the brush and take the reading just as the spring leaves the brush.

END PLAY .005'' to .030''. Adjust by installing MU-54 (1/32'' thick) or MU-54B (3/64'' thick) on commutator end of shaft as needed.

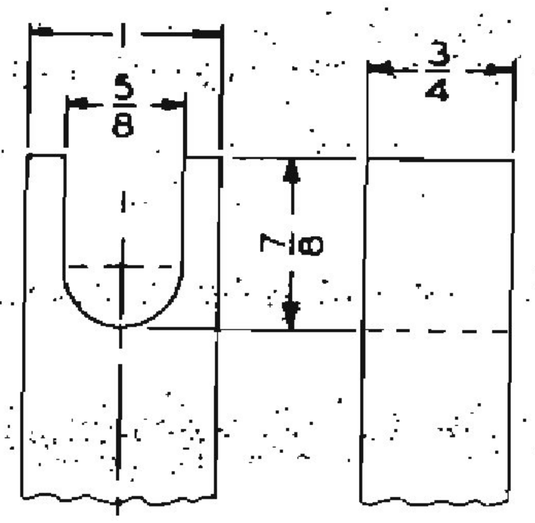
TRANSMISSION See Tabulation.

COMMUTATOR END HEAD Be sure felt oiling pad is in the outer end of the commutator end head before assembling head on the motor.

POLE SHOE ASSEMBLY Install pole shoes so that the long tip is the trailing edge.

MAGNETIC SHIFT CLUTCHES In operating the solenoid plunger by hand, it will be noted that - first, the switch contact is made and then, about 3/16'' further, travel bottoms the plunger and brings its outer end about flush with the solenoid housing.

SWITCH ACTION TEST To test switch action on clutch type motors, slip a steel spacer (See illustration for the dimensions) over the armature shaft between the pinion and the thrustwasher next to the outer pinion housing bearing. With this spacer in place, the magnetic switch should bottom and the switch contact should close under normal voltages.



TEST SPECIFICATIONS

No Load Draw	10 volts,	35 maximum amperes.	4800 minimum RPM.
Stall Torque	4 volts,	175 maximum amperes,	6.5 minimum Lbs. Ft.
No Load (Oil Seal)	10 volts,	48 maximum amperes,	3400 minimum RPM.

Unit	Rot.	Starting Switch Type	Mounted	Transmission	Special Instructions
MCT-6101	CW	Solenoid	On Motor	Mag. Shift Clutch	See Note 1
MCT-6103	CW	Solenoid	On Motor	Mag. Shift Clutch	See Note 2
MCT-6105M	CW		Separate	Bendix	See Notes 3, 4, 5
MCT-6106M	CCW		Separate	Bendix	See Notes 3, 4, 5
MCT-6110	CW	Solenoid	On Motor	Mag. Shift Clutch	See Note 2
MCT-6202M	CCW	Solenoid	On Motor	Bendix	See Notes 4, 6
MCT-6203M	CW	Solenoid	On Motor	Bendix	See Notes 4, 6
MCT-6301	CW	Solenoid	On Motor	Mag. Shift Clutch	See Note 2

NOTE 1 - With switch closed and plunger fully bottomed, a clearance of 3/32''+1/32''-1/64'' should be maintained between the outer edge of the pinion and the drive end thrustwasher. Have armature pushed toward commutator end and adjust by screwing switch plunger or link screw in or out.

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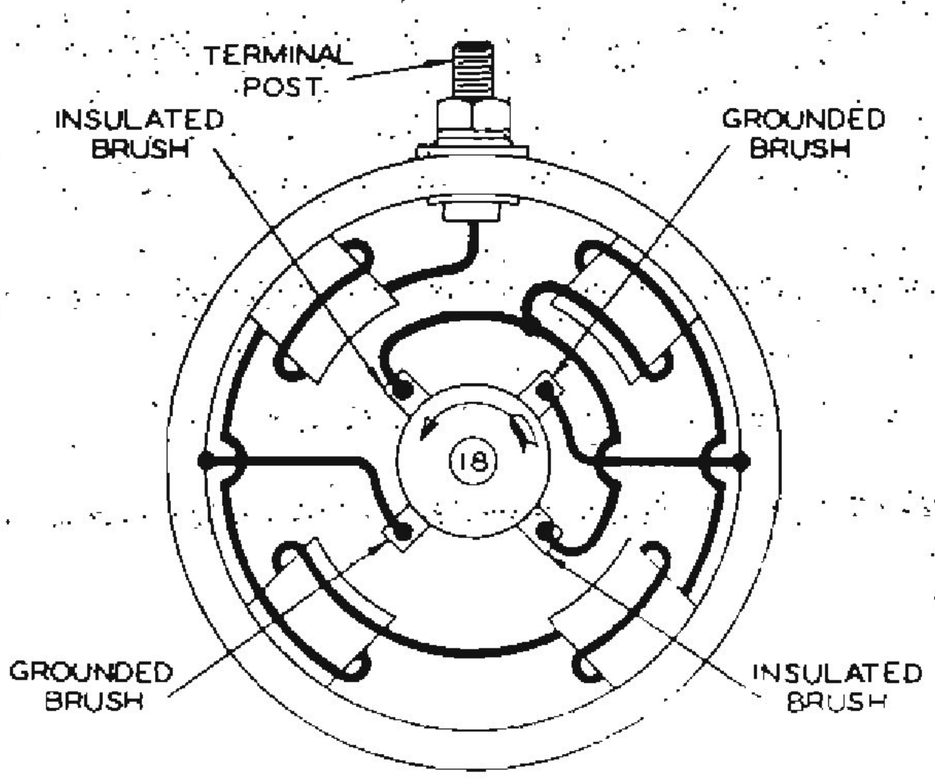
NOTE 2 - With switch closed and the plunger fully bottomed, a clearance of 3/32"+1/32"-1/64" should be maintained between the outer edge of the pinion and the pinion stop. Have armature pushed toward commutator end and adjust by screwing switch plunger or link screw in or out.

NOTE 3 - Use MN-18 or MN-18E thrustwashers as required to hold dimension of 1.220" to 1.348" including end play with drive retracted measured from mounting flange to outer edge of pinion or 1.967" to 2.095" including end play with drive extended.

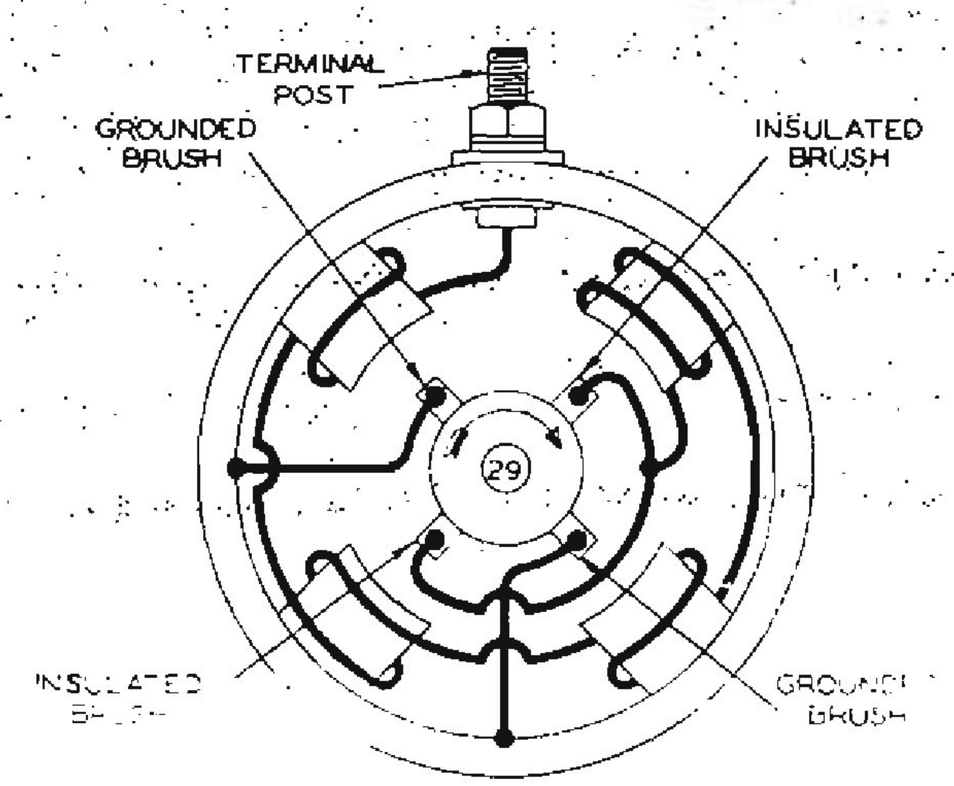
NOTE 4 - After installation of new field coils, paint the inside of the frame and soak the field coils with air-drying varnish. Keep varnish off of brush leads, pilot seats and heads. When re-using the old armature, its core and windings should be given the same treatment, being careful to keep the commutator and bearing surfaces clean.

NOTE 5 - Pack gear cavity with 1.2 to 2.0 ounces of medium grease.

NOTE 6 - Use MU-54F, MU-54J or MU-54N thrustwashers as required to hold dimension of 1.220" to 1.342" including end play with drive retracted measured from mounting flange to outer edge of pinion or 1.967" to 2.089" including end play with drive extended.



Internal Wiring of
CWDE Type Motors



Internal Wiring of
CCWDE Type Motors